

BULLETIN 1166B

PARTS

MODEL 28

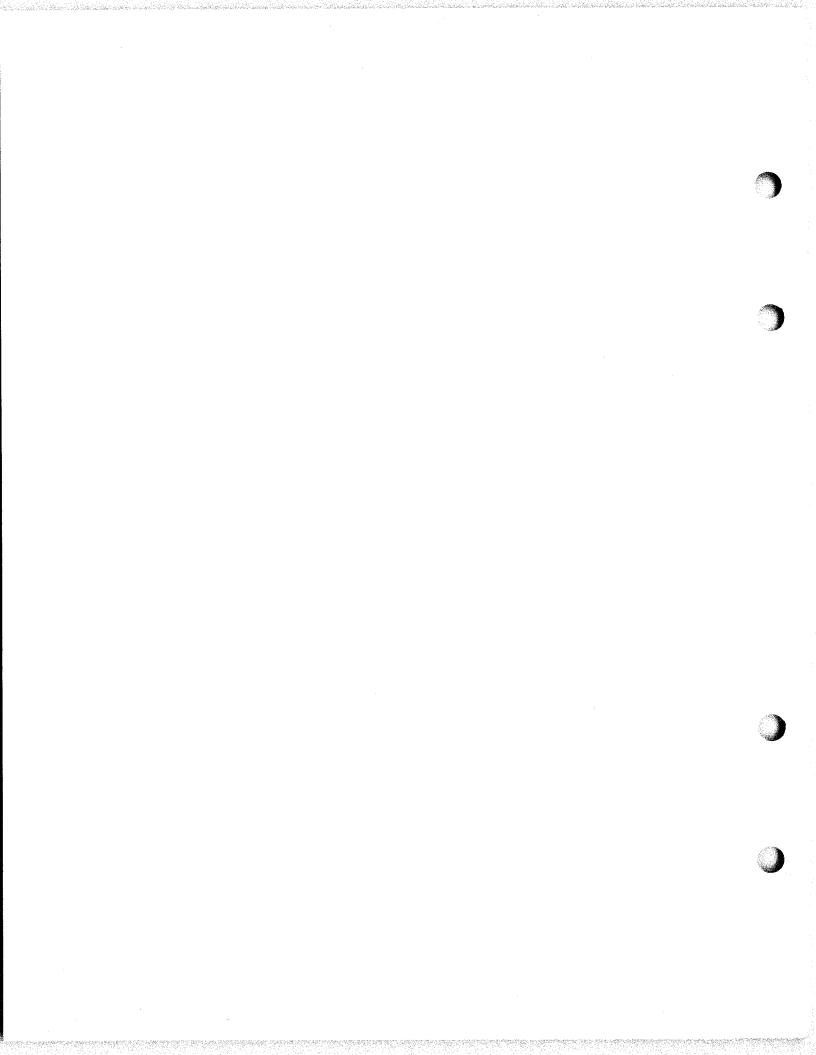
MULTI-MAG NET REPERFORATOR
(LARP)

TELETYPE

SUBSIDIARY OF Western Electric Company INC.

SKOKIE, ILLINOIS, U. S. A.

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LIST OF EFFECTIVE PAGES

MARCH, 1961 (Supersedes August, 1959 Issue)

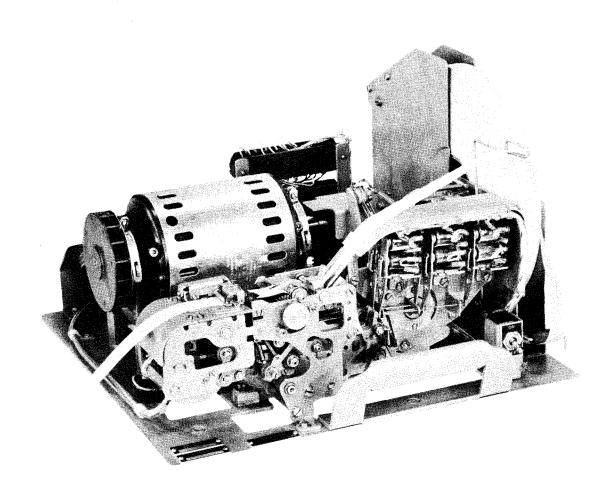
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Page Number	Change In Effect
A to B	Change 3
С	Change 2
D to E	Change 3
1-1 to 1-7	Change 2
2–1	Change 2
2-2 to 2-7	Change 3
2-8 to 2-15	Change 2
2-16 to 2-25	Change 3
2-26 to 2-27	Change 2
2-28 to 2-39	Change 3
3-1 to 3-3	Change 2
4-1	Change 2
4-2 to 4-4	Change 3

The above list indicates the effective pages as of the date of issue. Upon receipt of Change Pages, insert them numerically and discard any superseded pages.

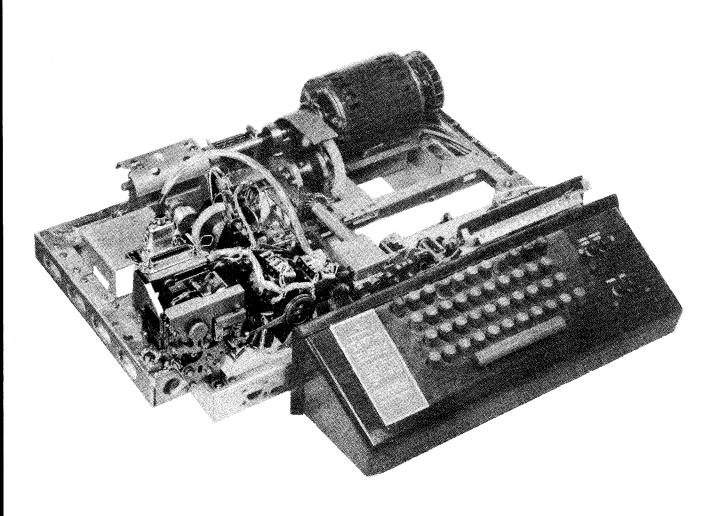
TABLE OF CONTENTS

SECTION 1 - MULTI-MAGNET REPERFORATOR BASE (LARB)

Figure Number		Page Number
1-1 1-2 1-3	Tape Container Assembly	1-2 1-4 1-6
	SECTION 2 - MULTI-MAGNET REPERFORATOR (LARP)	
2-1 2-2 2-3 2-4 2-5 2-6 2-7 2-8 2-9 2-10 2-11 2-12 2-13 2-14 2-15 2-16 2-17 2-18 2-19	Rear Plate and Punch Block Assemblies Punch Front Plate Punch Bail Mechanism Verifier Contact Assembly – View 1 Verifier Contact Assembly – View 2 Verifier Contact Assembly – View 3 Verifier Contact Assembly – View 4 Code Selector Assembly Rocker Bail Main Shaft Assembly Main Plate Magnet Release Contact Assembly Tape Feed—Out Assembly Clutch Trip Mechanism Reperforator Main Frame Code Selector Mechanism 145796 and 173815 Auxiliary Contact Assemblies Backspace Mechanism	2-2 2-4 2-6 2-8 2-10 2-12 2-14 2-16 2-18 2-20 2-22 2-24 2-26 2-28 2-30 2-32 2-34 2-36 2-38
2-19	Backspace Mechanism	2-30
	SECTION 3 - MOTOR UNIT (LMU)	
3-1	LMU3 Synchronous Motor Unit	3-2
	CECTION A NUMBERICAL INDEV	



MODEL 28 MULTI-MAGNET REPERFORATOR (LARP) WITH BASE (LARB) AND MOTOR UNIT (LMU)



MODEL 28 MULTI-MAGNET REPERFORATOR (LARP) MOUNTED ON A KEYBOARD (LAK)

TELETYPE AND BELL SYSTEM CODE REFERENCE CHART				
DESCRIPTION	TELETYPE CODE	BELL SYSTEM CODE	SELF CONTAINED SET	KEYBOARD MOUNTED (ASR SET)
Multi-magnet Reperforator	LARP1 LARP2 LARP5 LARP6 LARP600 LARP700 LARP800 LARP801 LARP802	See Note	X X X X X X	X
Base	LARB1		×	
Motor Unit	LMU3	28A	,	
Gears (200 WPM)	159036 - 42T 159037 - 7T		х	
Gear Set (100 WPM)	144993: 144757 - 23T 144758 - 92T	28LA		x

Note: A Bell System 28LA Perforator Transmitter Base consists of an LAK20BRV and LARP801.

BELL SYSTEM ONLY

When ordering parts from this bulletin, prefix each number with the letters $\ensuremath{\mathsf{TP}}$.



SECTION 1

MULTI-MAGNET REPERFORATOR BASE

CHANGE 2

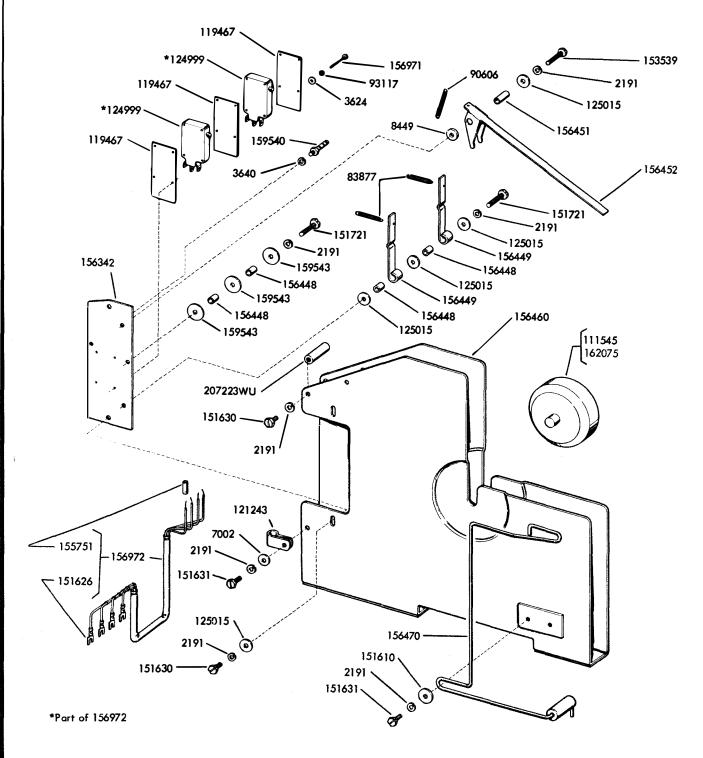


FIGURE 1-1. TAPE CONTAINER ASSEMBLY

Part	
Number	Description
2191	Washan Lauli
3624	Washer, Lock Washer, Flat
	•
3640	Washer, Lock
7002	Washer, Flat
8449	Washer, Flat
83877	Spring
90606	Spring
93117	Washer, Lock
111545	Core, Tape Reel (2" Dia.)
119467	Insulator
121243	Clamp, Cable
124999	Switch, Sensitive
125015	Washer, Flat
151610	Washer, Flat
151626	Terminal
151630	Screw (6-40 x 1/4 Hex)
151631	Screw $(6-40 \times 5/16 \text{ Hex})$
151721	Screw (6-40 x 3/4 Hex)
153539	Screw (6-40 x 11/16 Hex)
155751	Sleeve, Insulating
156342	Plate, Mounting
156448	Bushing
156449	Lever, Switch
156451	Bushing
156452	Lever, Tape
156460	Panel Assembly
156470	Guide W/Holder, Tape
156971	Screw (2-56 x 3/4 Fil)
156972	Cable W/Terminals
159540	Post, Spring
159543	Washer, Flat
162075	Core, Tape Reel (1"Dia.)
207223WI	

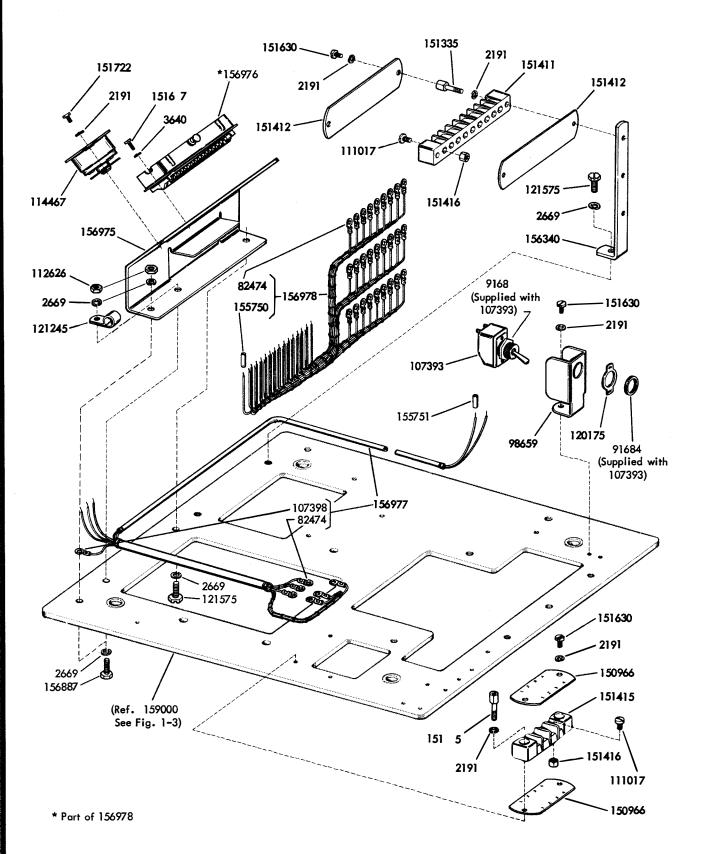


FIGURE 1-2. BASE ASSEMBLY - VIEW 1

Part	
Number	Description
2191	Washer, Lock
2669	Washer, Lock
3640	Washer, Lock
82474	Terminal
91683	Nut (15/32-32 Hex)
91684	Nut (15/32-32 Ring)
98659	Bracket, Switch
107393	Switch, Toggle
107398	Terminal
111017	Screw (6-40 x 5/16 Fil)
112626	Nut (10-32 Hex)
114467	Connector, Plug (Mates with 114466)
120175	Plate, Switch
121245	Clamp, Cable
121 <i>5</i> 75	Screw (10-32 x 5/16 Hex)
150966	Insulator
151335	Stud
151411	Block, Terminal
151412	Insulator
151415	Block, Terminal
151416	Nut (6-40 Hex)
151630	Screw $(6-40 \times 1/4 \text{ Hex})$
151637	Screw (4-40 x 1/4 Fil)
151722	Screw (6-40 x 3/16 Hex)
1 <i>55</i> 7 <i>5</i> 0	Sleeve, Insulating
155751	Sleeve, Insulating
156340	Bracket
1 <i>5</i> 6887	Screw (10-32 x 9/16 Hex)
1 <i>5</i> 6975	Bracket, Connector Mounting
156976	Connector, Plug 32PT.
156977	Cable W/Terminals, Power
156978	Cable W/Terminals, Control

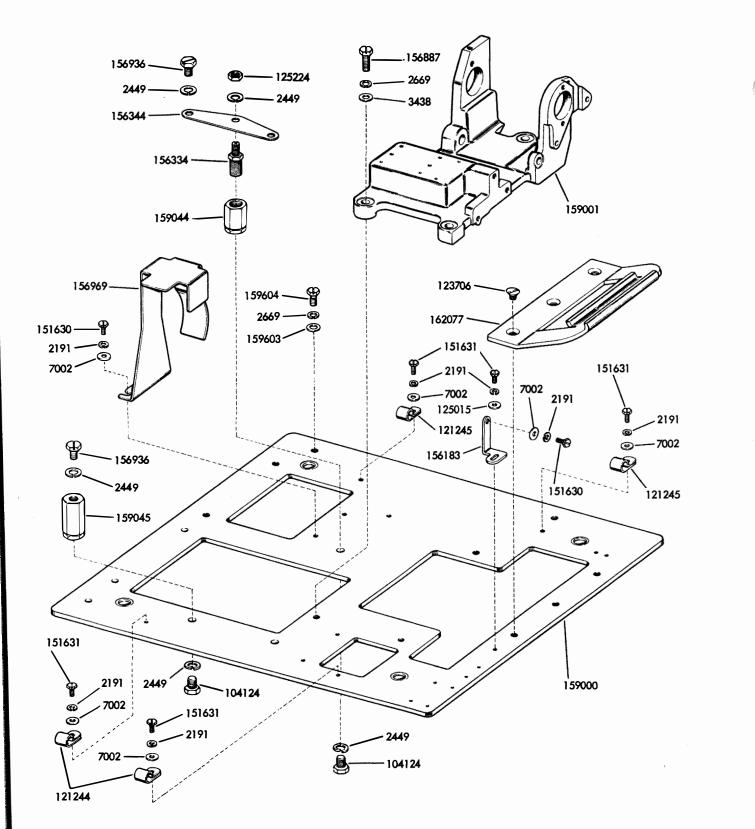
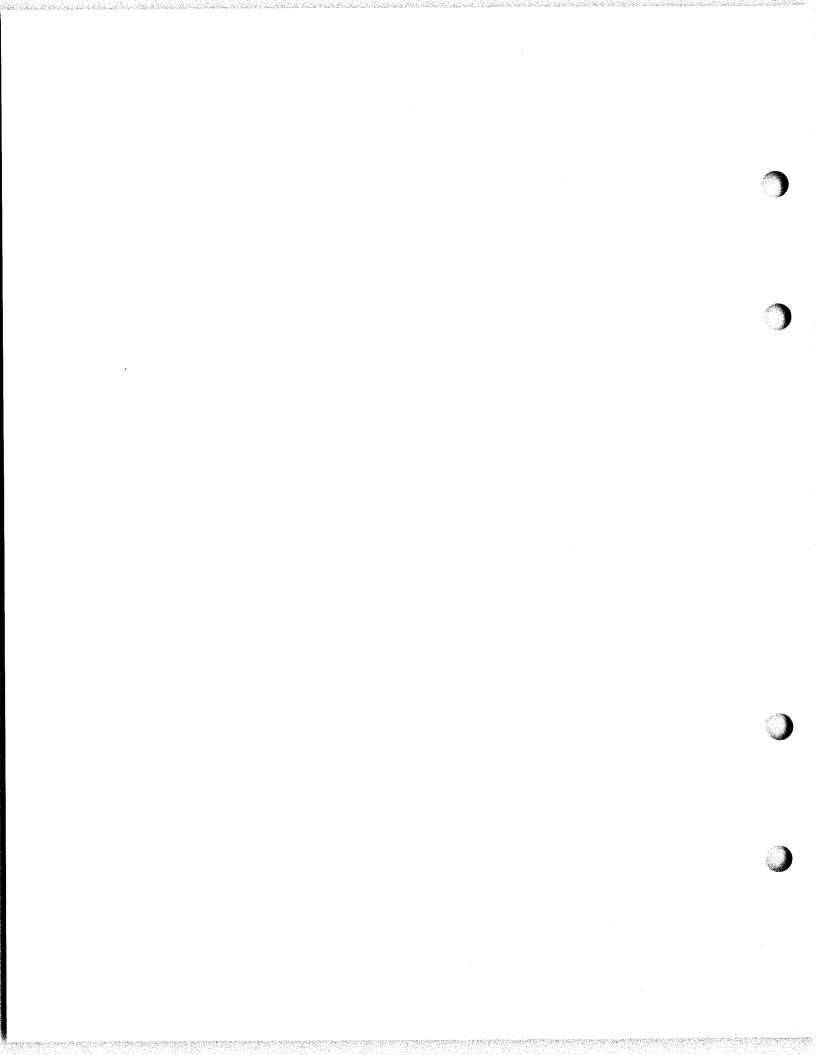


FIGURE 1-3. BASE ASSEMBLY - VIEW 2

Part	D 1.1
Number	Description
2191	Washer, Lock
2449	Washer, Lock
2669	Washer, Lock
3438	Washer, Flat
7002	Washer, Flat
104124	Screw (1/4-32 x 11/32 Hex)
121244	Clamp, Cable
121245	Clamp, Cable
123706	Screw (10-32 x 1/4 Flat)
125015	Washer, Flat
125224	Nut (1/4-32 Hex)
151630	Screw (6-40 x 1/4 Hex)
151631	Screw (6-40 x 5/16 Hex)
156183	Bracket
156334	Stud
156344	Bracket, Adjusting
1 <i>5</i> 6887	Screw (10-32 x 9/16 Hex)
156936	Screw $(1/4-32 \times 5/16 \text{ Hex})$
156969	Guard, Gear
159000	Base W/Feet
159001	Frome
159044	Post
159045	Post
159603	Washer, Captive
159604	Screw, Special (10-32)
162077	Handle



SECTION 2

MULTI-MAGNET REPERFORATOR

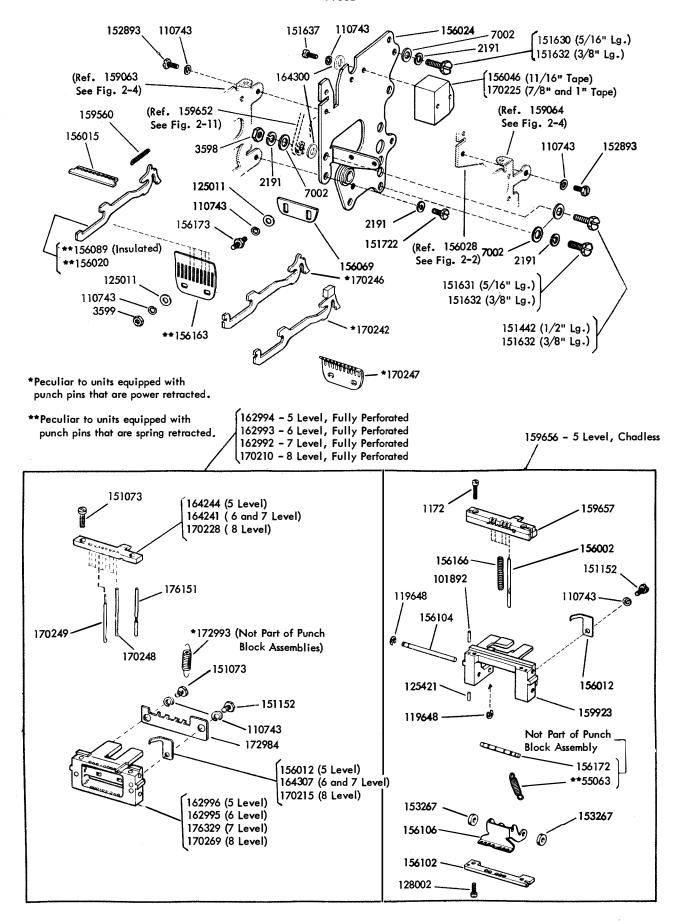


FIGURE 2-1. REAR PLATE AND PUNCH BLOCK ASSEMBLIES

		NOMERICAE INDEX	TTOOKE 2	•
Part			Part	
Number	Description		Number	Description
1172	Screw (2-56 x 5/16 Fil)		170248	Pin, Code Hole Punch
2191	Washer, Lock		170249	Pin, Feed Hole Punch
3598	Nut (6-40 Hex)		170269	Holder, Punch
3599	Nut (4-40 Hex)		172984	Bracket, Spring
7002	Washer, Flat		172993	Spring
55063	Spring		176151	Pin, Guide
101892	Dowel		176329	Holder, Punch
110743	Washer, Lock		170027	riolaery renem
119648	Ring, Retaining			
125011	Washer, Flat	`		
125138	Screw (2-56 × 3/8 Fil)			
125421	Dowel, Upper Guide Plate			
128002	Screw (2-56 x 3/16 Fil)			
151073	Screw $(4-40 \times 5/32 \text{ Fil})$			
151152	Screw (4-40 x 3/16 Hex)			
151442	Screw (6-40 x 1/2 Hex)			
151630	Screw (6-40 x 1/4 Hex)			
151631	Screw $(6-40 \times 5/16 \text{ Hex})$			
151632	Screw (6-40 x 3/8 Hex)			
151637	Screw (4-40 x 1/4 Fil)			
151722	Screw $(6-40 \times 3/16 \text{ Hex})$			
152893	Screw (4-40 x 1/4 Hex)			
153267	Washer, Felt			
156002	Pin, Punch			
156012	Spring, Punch Block			
156015	Plate			
156020	Slide			
156024	Plate W/Bushings, Rear			
156046	Block, Tape Guide			
156069	Plate			
156089	Slice W/Insulator			
156102	Plate, Bottom Guide			
156104	Shaft			
156106	Bail			
156163	Guide			
156166	Spring			
156172	Rod			
156173	Stud			
159560	Spring, Punch Slide			
159656	Block Assembly, Punch			
159657	Plates, Guide and Die			
159923	Holder, Punch			
162992	Block Assembly, Punch			
162993	Block Assembly, Punch			
162994	Block Assembly, Punch			
162995	Holder, Punch			
162996	Holder, Punch			
164241	Plate, Die			
164244	Plate, Die			
164300	Spacer			
164307	Spring, Punch Block			
170210	Block Assembly, Punch			
170215	Spring, Punch Block			
170225	Block, Tape Guide			
170228	Plate, Die			
170242	Slide, Feed Hole Punch			
170246	Slide, Code Hole Punch			
170247	Guide			

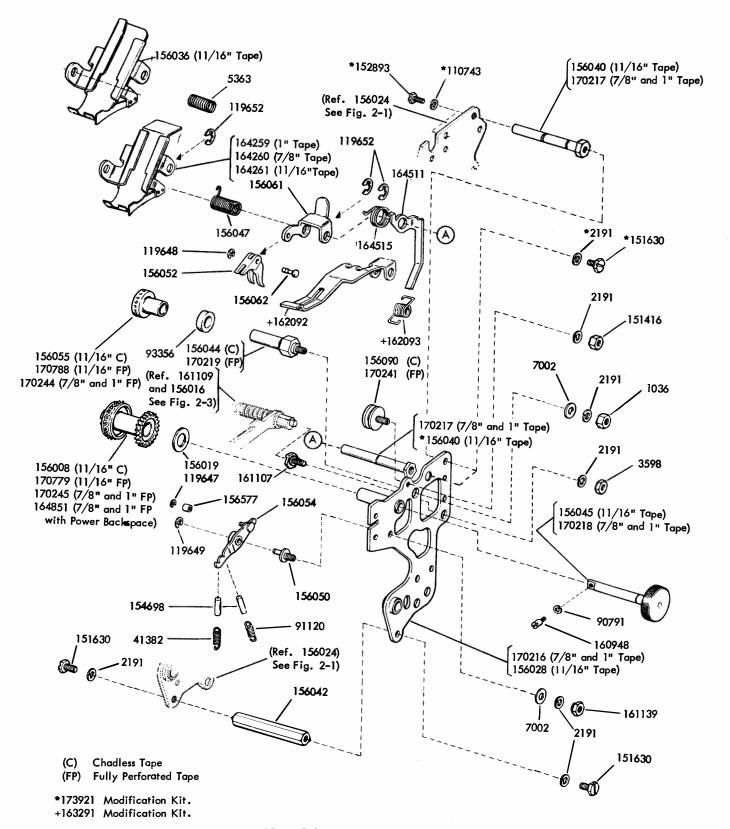
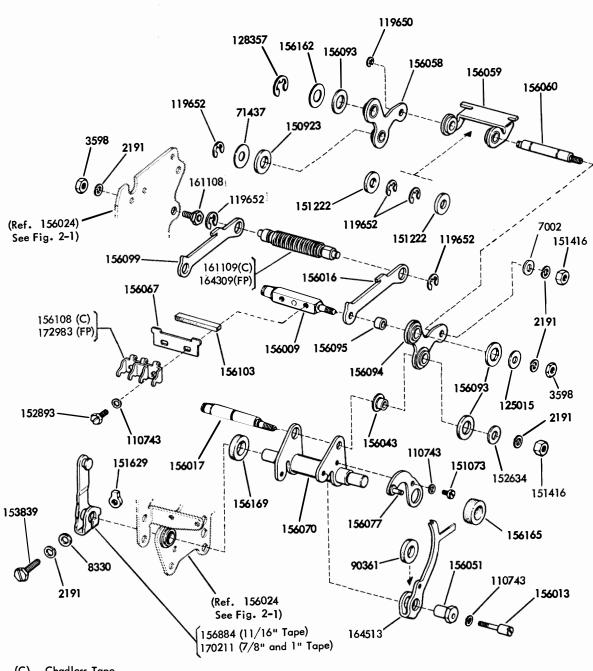


FIGURE 2-2. PUNCH FRONT PLATE

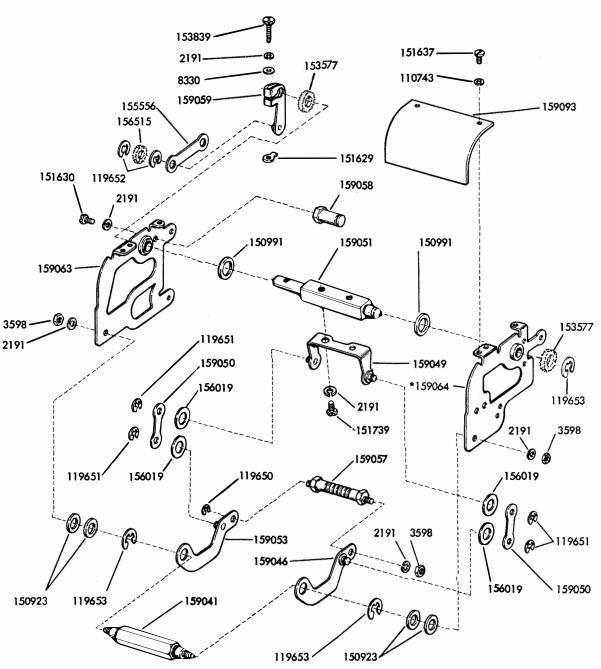
Part Number	Description
	·
1036	Nut (6-40 Hex)
2191	Washer, Lock
3598	Nut (6-40 Hex)
5363 7002	Spring
41382	Washer, Flat Spring, Detent
90791	Washer, Lock
91120	Spring, Feed Pawl
93356	Washer, Felt
110743	Washer, Lock
119647	Ring, Retaining
119648	Ring, Retaining
119649	Ring, Retaining
119652	Ring, Retaining
151416	Nut (6-40 Hex)
151630	Screw (6-40 x 1/4 Hex)
152893	Screw (4-40 x 1/4 Hex)
154698	Wick, Felt
156008 156019	Wheel, Feed
156028	Washer, Felt Plate, Front
156036	Chute, Tape
156040	Stud
156042	Post, Spacing
156044	Stud, Eccentric
156045	Shaft, Feed Wheel
156047	Spring
156050	Stud, Eccentric
156052	Shoe, Tape
156054	Lever
156055 156061	Wheel, Die Arm, Tape Shoe
156061	Post, Pivot
156090	Screw, Adjusting
156577	Roller
160948	Screw (2-56 x 5/32 Spl)
161107	Stud
161139	Nut, Shoulder (6-40 Hex)
162092	Guide, Tape
162093	Spring
164259 164260	Chute, Tape
164261	Chute, Tape Chute, Tape
164511	Lever
164515	Spring
164851	Wheel, Feed
170216	Plate, Front
170217	Stud
170218	Shaft, Feed Wheel
170219	Stud, Eccentric
170241	Screw, Adjusting
170244	Wheel, Die
170245	Wheel, Feed
1 <i>70779</i> 1 <i>7</i> 0788	Wheel, Feed
1/0/00	Wheel, Die



(C) Chadless Tape(FP) Fully Perforated Tape

FIGURE 2-3. PUNCH BAIL MECHANISM

Part	
Number	Description
2191	Washer, Lock
3598	Nut (6-40 Hex)
7002	Washer, Flat
83 30	Washer, Flat
71437	Washer, Flat
90361	Washer, Felt
110743	Washer, Lock
119650	Ring, Retaining
119652	Ring, Retaining
125015	Washer, Flat
1.28357	Ring, Retaining
150923	Washer, Felt
151073	Screw (4-40 \times 5/32 Fil)
151222	Washer, Felt
151416	Nut (6-40 Hex)
151629	Nut (6-40 Lug)
152634	Washer, Flat
152893	Screw $(4-40 \times 1/4 \text{ Hex})$
153839	Screw (6-40 x 5/8 Hex)
156009	Post
156013	Screw, Adjusting (4-40)
156016	Link, Front Drag
1 <i>5</i> 601 <i>7</i>	Shaft
156043	Bushing
156051	Bushing, Eccentric
156058	Link, Rear Bail, Reset
156059	Bail, Reset
156060	Shaft, Eccentric
156067	Guide
1 <i>5</i> 6070	Bail
156077	Plate W/Post
156093	Washer, Felt
156094	Link, Front
156095	Bushing
156099	Link, Rear Drag
156103	Strip, Felt
156108	Bracket
156162	Washer, Flat
156165	Washer, Felt
156169	Washer, Felt
156884	Stud
161108	Stud
161109	Post, Guide
164309	Post, Guide
164513	Pawl, Feed
1 <i>7</i> 0211 1 <i>7</i> 2983	Arm, Rocker Bracket
1/2/00	DIUCKEI



Note: Part marked with an asterisk (*) is peculiar to units equipped with contacts to verify six characters after perforation.

FIGURE 2-4. VERIFIER CONTACT ASSEMBLY - VIEW 1

Part Number	Description
2191	Washer, Lock
3598	Nut (6-40 Hex)
8330	Washer, Flat
110743	Washer, Lock
119650	Ring, Retaining
119651	Ring, Retaining
119652	Ring, Retaining
119653	Ring, Retaining
150923	Washer, Felt
150991	Washer, Felt
151629	Nut (6-40 Lug)
151630	Screw $(6-40 \times 1/4 \text{ Hex})$
151637	Screw $(4-40 \times 1/4 \text{ Fil})$
151739	Screw $(6-40 \times 3/16 \text{ Hex})$
153577	Washer, Felt
153839	Screw $(6-40 \times 5/8 \text{ Hex})$
155556	Link
156019	Washer, Felt
156515	Washer, Felt
159041	Post
159046	Plate W/Stud, Front
159049	Bracket W/Studs
159050	Link
159051	Shaft, Toggle
159053	Plate W/Studs, Rear
159057	Post, Guide
159058	Post
159059	Arm W/Stud
159063	Plate W/Bushing, Rear
159064	Plate W/Bushing, Front
159093	Plate

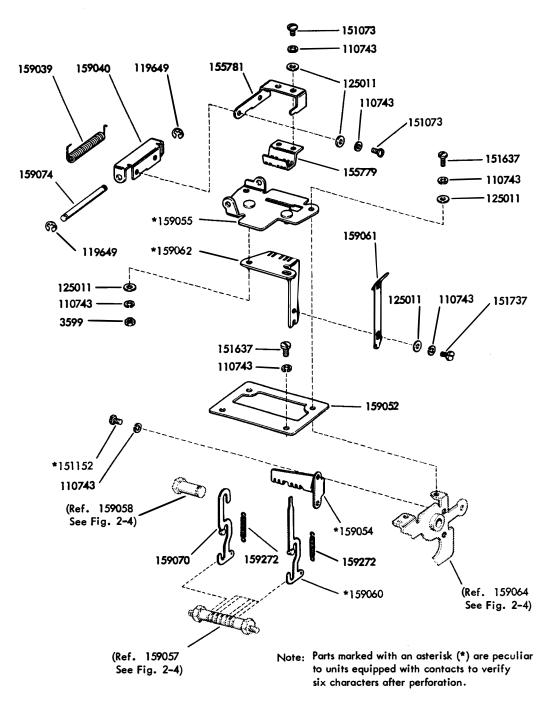
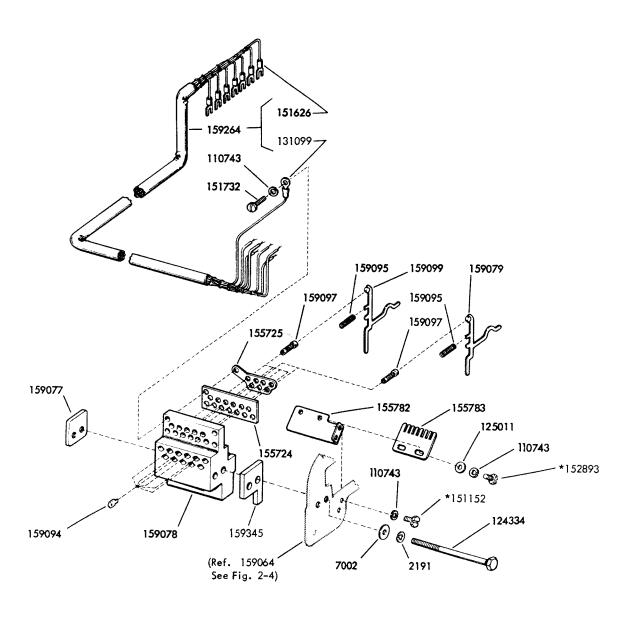


FIGURE 2-5. VERIFIER CONTACT ASSEMBLY - VIEW 2

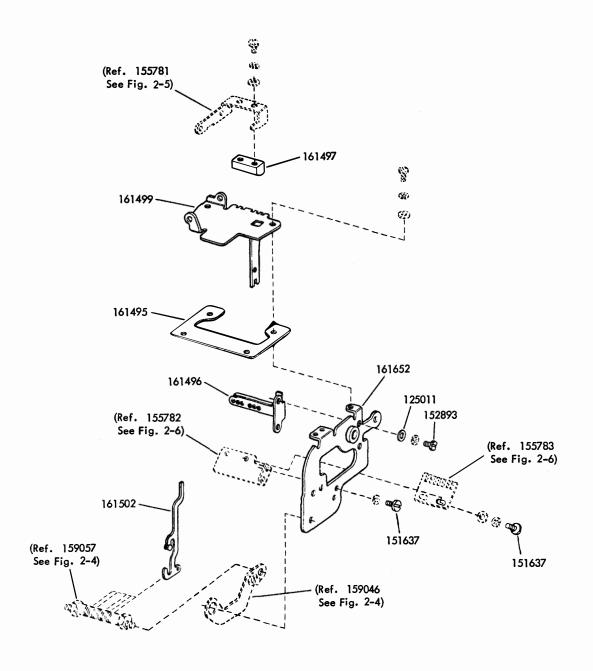
Part	
Number	Description
3599	Nut (4-40 Hex)
110743	Washer, Lock
119649	Ring, Retaining
125011	Washer, Flat
151073	Screw (4-40 x 5/32 Fil)
151152	Screw (4-40 x 3/16 Hex)
151637	Screw (4-40 x 1/4 Fil)
151737	Screw (4-40 x 11/64 Hex)
155779	Plate, Lid
155781	Bracket
159039	Spring
159040	Bracket
159052	Plate
159054	Bracket, Spring Hook
159055	Bracket W/Studs
159060	Slide, Sensing
159061	Latch
159062	Guide
159070	Slide
159074	Shaft
159272	Spring
	. •



Note: Parts marked with an asterisk (*) are peculiar to units equipped with contacts to verify six characters after perforation.

FIGURE 2-6. VERIFIER CONTACT ASSEMBLY - VIEW 3

Part	
Number	Description
2191	Washer, Lock
7002	Washer, Flat
110743	Washer, Lock
124334	Screw $(6-40 \times 1-27/32 \text{ Hex})$
125011	Washer, Flat
131099	Terminal
151152	Screw (4-40 x 3/16 Hex)
151626	Terminal
151732	Screw (4-40 x 11/32 Fil)
152893	Screw $(4-40 \times 1/4 \text{ Hex})$
15 <i>5</i> 724	Strip
155725	Plate
1 <i>55</i> 782	Bracket
1 <i>55</i> 783	Plate
159077	Plate, Nut
159078	Block
159079	Lever, Contact
159094	Plate
159095	Spring
159097	Screw, Contact
159099	Lever, Contact
159264	Cable W/Terminals
159345	Block, Spacing



Note: All parts shown on this page are peculiar to units equipped with contacts to verify one character after perforation.

FIGURE 2-7. VERIFIER CONTACT ASSEMBLY - VIEW 4

Part	
Number	Description
110743	Washer, Lock
125011	Washer, Flat
151637	Screw (4-40 x 1/4 Fil)
152893	Screw (4-40 x 1/4 Hex)
161495	Plate
161496	Bracket W/Nuts, Spring
161497	Block, Lid
161499	Plate W/Bracket
161502	Slide, Sensing
161652	Plate W/Bushing, Front

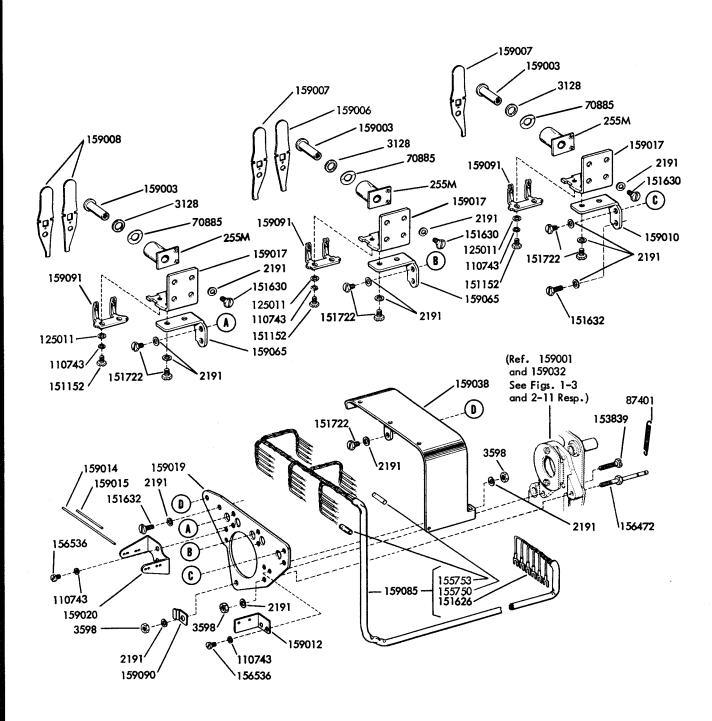
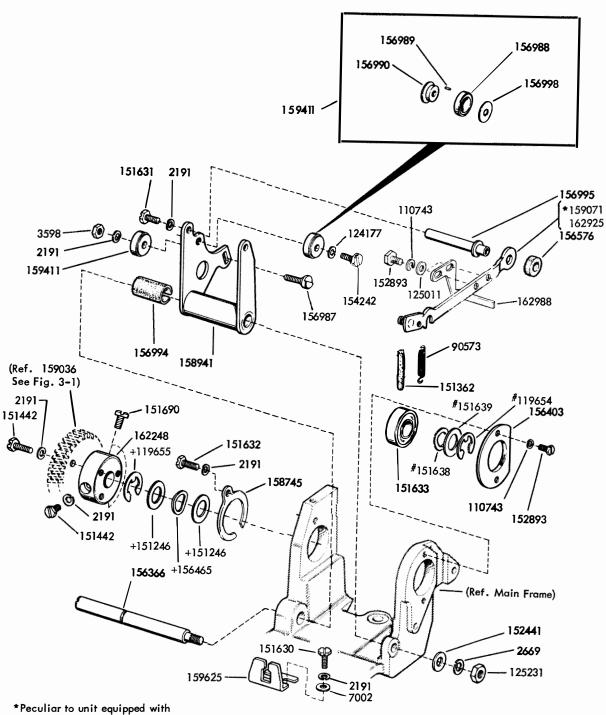


FIGURE 2-8. CODE SELECTOR ASSEMBLY

Part	
Number	Description
	•
255M	Coil, Magnet
2191	Washer, Lock
3128	Washer, Fiber
3598	Nut (6-40 Hex)
70885	Washer, Spring
87401	Spring, Clutch Latch
110743	Washer, Lock
125011	Washer, Flat
151152	Screw (4-40 x 3/16 Hex)
151626	Terminal
151630	Screw $(6-40 \times 1/4 \text{ Hex})$
151632	Screw $(6-40 \times 3/8 \text{ Hex})$
151722	Screw $(6-40 \times 3/16 \text{ Hex})$
153839	Screw $(6-40 \times 5/8 \text{ Hex})$
155750	Sleeve, Insulating (.133" Dia.)
155753	Sleeve, Insulating (.170" Dia.)
156472	Post, Spring
156536	Screw (4-40 x 1/8 Fil)
159003	Core
159006	Armature
159007	Armature
159008	Armature
159010	Bracket
159012	Bracket, Rod
159014	Rod
159015	Rod
1 <i>5</i> 9017	Yoke
159019	Plate
159020	Guide
159038	Guard
159065	Bracket
159085	Cable W/Terminals, Code Selector
159090	Guide
159091	Bracket W/Spring

2-17



^{*}Peculiar to unit equipped with verifier contact assembly.

FIGURE 2-9. ROCKER BAIL

⁺No longer required.

^{*}Peculiar to Keyboard mounted reperforator.

Part Number	Description
2191	Washer, Lock
2669	Washer, Lock Washer, Lock
3598	Nut (6-40 Hex)
7002	Washer, Flat
90573	Spring, Rocker Arm
110743	Washer, Lock
119654	Ring, Retaining
119655	Ring, Retaining
124177	Washer, Lock
125011	Washer, Flat
125231	Nut (10-32 Hex)
151246	Washer, Flat
151362	Wick
151442	Screw (6-40 \times 1/2 Hex)
151630	Screw (6-40 x 1/4 Hex)
151631	Screw (6-40 x $5/16$ Hex)
151632	Screw (6-40 x 3/8 Hex)
151633	Bearing
151638	Washer, Spring
151639	Washer, Flat
151690	Screw (10-32 \times 5/16 Fil)
152441	Washer, Flat
152893	Screw $(4-40 \times 1/4 \text{ Hex})$
154242	Screw (6–40 × 3/8 Hex)
156366	Shaft, Rocker Bail
156465	Washer, Spring
156403	Disk, Bearing
156576	Washer, Felt
156987	Screw, Shoulder (6-40)
156988	Race, Outer
156989	Roller
156990	Race, Inner
156994 156995	Strip, Felt Post
156998	
158745	Retainer, Roller
158941	Plate, Clamp Bail, Rocker
159071	Link
159411	Bearing Assembly
159625	Bracket, Guide
162248	Hub, Gear
162925	Link
162988	Bail, Retraction
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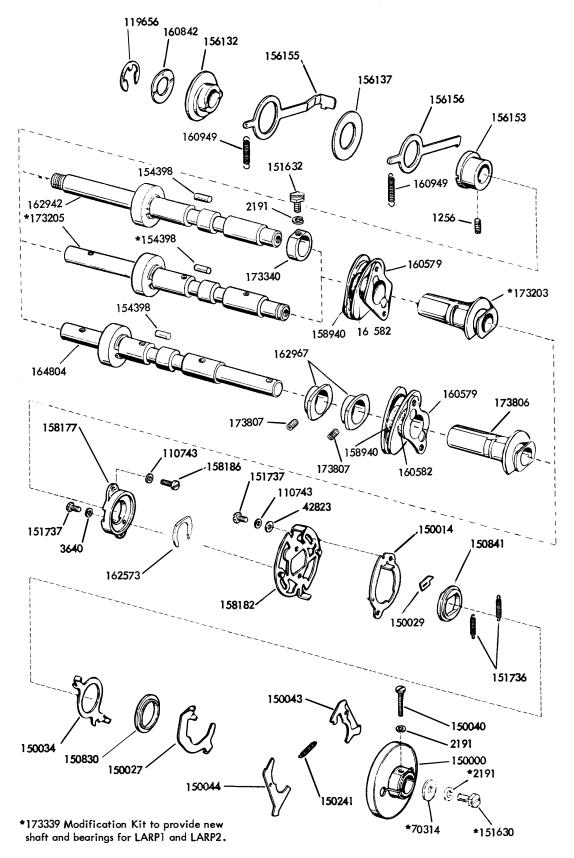


FIGURE 2-10. MAIN SHAFT ASSEMBLY

Part	
Number	Description
1256	Screw, Set (6-40)
2191	Washer, Lock
3640	Washer, Lock
42823	Washer, Flat
70314	Washer, Flat
110743	Washer, Lock
119656	Ring, Retaining
150000	Drum, Clutch
150014	Disk, Adjusting
150027	Lever, Clutch Shoe
150029	Wick, Felt
150034	Disk, Clutch Shoe Lever
150040	Screw (6-40 × 5/8 Fil)
150043	Shoe, Clutch
150044	Shoe, Clutch
150241	Spring
150830	Ring, Spacing
150841	Bearing
151630	Screw (6-40 \times 1/4 Hex)
151632	Screw (6–40 \times 3/8 Hex)
151736	Spring
1 <i>5</i> 1 <i>7</i> 37	Screw (4-40 x 11/64 Hex)
154398	Bearing, Roller
1 <i>5</i> 6132	Bearing, Eccentric
1 <i>5</i> 6137	Washer, Flat
156153	Collar, Eccentric
156155	Pawl, Feed
156156	Pawl, Check
158177	Collar, Disk
158182	Disk, Clutch Cam
158186	Screw (4-40 x 7/32 Fil)
158940	Wick, Felt
160579	Cam W/Wicks, Punch Drive
160582	Wick, Felt
160842	Washer, Spring
160949	Spring
162573	Retainer
162942	Shaft W/Bearing
162967	Cam
164804	Shaft W/Bearing
173203	Bearing, Sleeve
173205	Shaft W/Bearing
173339 173340	Modification Kit Collar
	· · ·
173806 173807	Bearing, Sleeve
1/360/	Screw, Set (6–40)

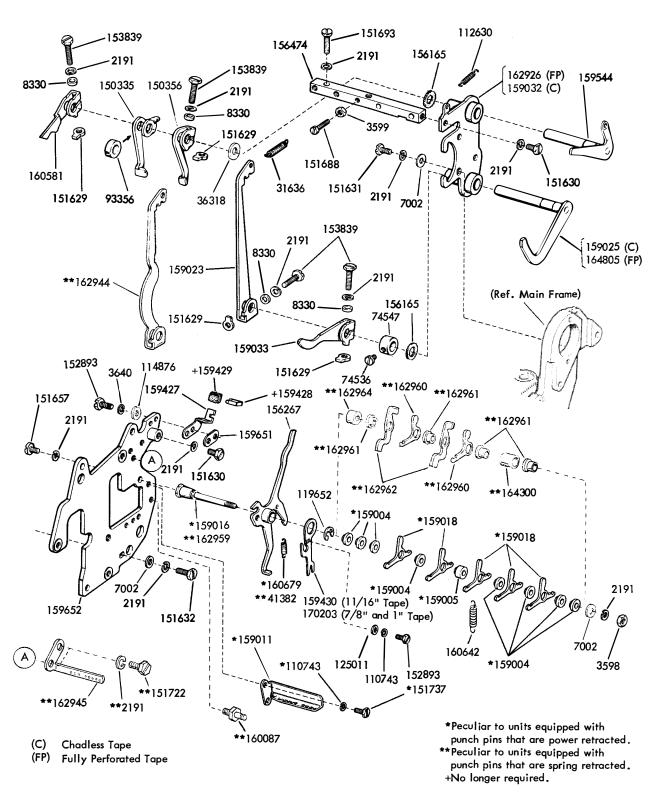


FIGURE 2-11. MAIN PLATE

Part		Part	
Number	Description	Number	Description
	•		- 35300 p .1501
2191	Washer, Lock	162961	Spacer, Bearing
3598	Nut (6-40 Hex)	162962	Extension, Blocking Pawl
3599	Nut (4-40 Hex)	162964	Spacer
3640	Washer, Lock	164300	Spacer Spacer
7002	Washer, Flat	164805	Lever W/Shaft, Lower
8330	Washer, Flat	170203	Lever, Trip
31636	Spring, Function Trip Lever		, ,
36318	Washer, Flat		
41 382	Spring		
74536	Screw (6-40 \times 5/32 FII)		
74547	Collar		
93356	Washer, Felt		
110743	Washer, Lock		
112630	Spring, Upper Trip Lever		
114876	Washer, Flat		
119652	Ring, Retaining		
125011	Washer, Flat		
150335	Lever, Clutch Latch		
1 <i>5</i> 0356	Lever, Clutch Trip		
151629	Nut (6-40 Lug)		
151630	Screw (6–40 \times 1/4 Hex)		
151631	Screw (6–40 x 5/16 Hex)		
151632	Screw $6-40 \times 3/8$ Hex)		
151657	Screw (6–40 x 1/4 FII)		
151688	Screw (4-4- x 5/8 Fil)		
151693	Screw (6-40 x 9/16 Fil)		
151722	Screw $(6-40 \times 3/16 \text{ Hex})$		
151737	Screw (4–40 x 11/64 Hex)		
152893	Screw (4–40 x 1/4 Hex)		
153839	Screw (6–40 x 5/8 Hex)		
156165	Washer, Felt		
156267	Lever, Trip		
156474	Bar Sanan Bandar		
159004	Spacer, Bearing		
159005 159011	Spacer, Bearing Bracket, Spring		
159016	Post, Guide		
159018	Latch		
159023	Lever, Trip		
159025	Lever W/Shaft, Lower		
159032	Plate		
159033	Lever, Lower Reset		
159427	Bracket		
159428	Retainer, Wick		
159429	Wick, Felt		
159430	Lever, Trip		
159544	Release W/Shaft, Clutch		
159651	Plate, Nut		
159652	Plate, Main		
160087	Post, Spring		
160581	Lever, Upper Reset		
160642	Spring		
160679	Spring		
162926	Plate		
162944	Lever, Trip		
162945	Bracket, Spring		
162959	Post, Guide		
162960	Pawl, Blocking		

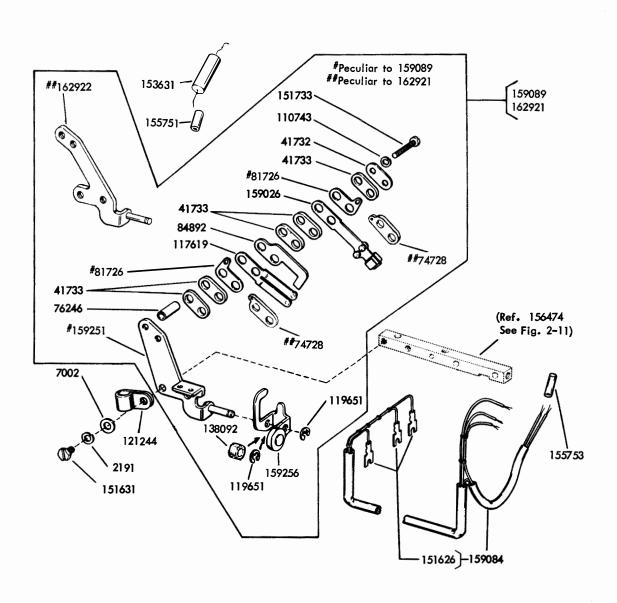


FIGURE 2-12. MAGNET RELEASE CONTACT ASSEMBLY

Part	
Number	Description
2191	Washer, Lock
7002	Washer, Flat
41732	Plate
41733	Insulator
72728	Terminal
76246	Bushing, Insulating
81726	Terminal
84892	Stiffener
110743	Washer, Lock
117619	Spring, Contact
119651	Ring, Retaining
121244	Clamp, Cable
130892	Washer, Felt
151626	Terminal
151631	Screw (6–40 x 5/16 Hex)
151733	Screw (4–40 x 9/16 Fil)
153631	Network, Spark Suppression
155751	Sleeve, Insulating
155753	Sleeve, Insulating
159026	Spring, Contact
159084	Cable W/Terminals
159089	Contact Assembly
159251	Bracket W/Stud
159256	Bail W/Roller and Stud
162921	Contact Assembly
162922	Bracket W/Stud

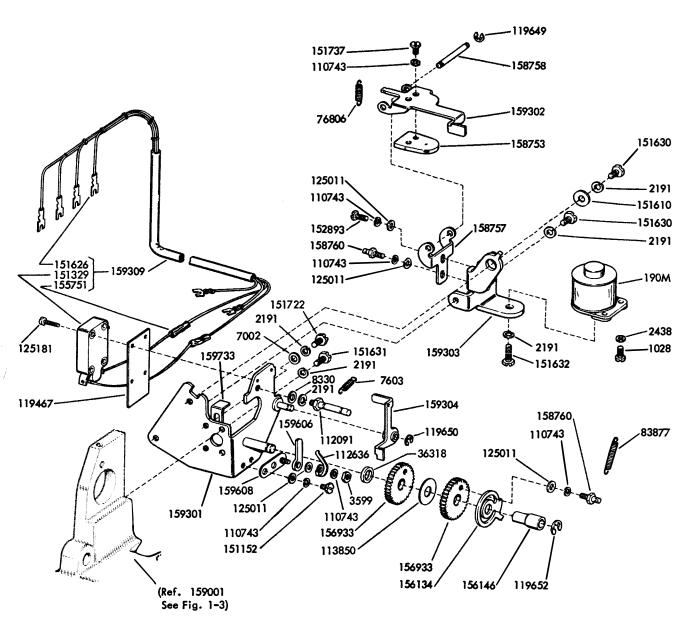
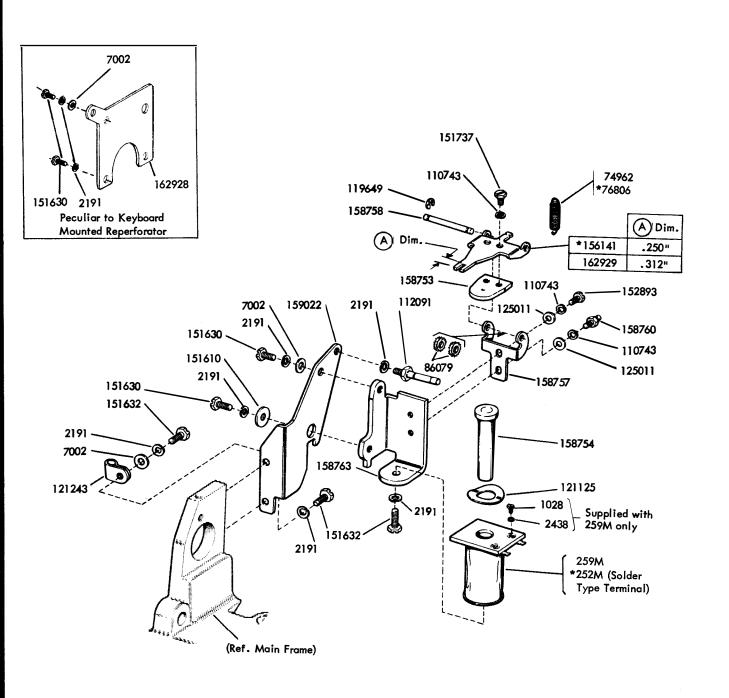


FIGURE 2-13. TAPE FEED - OUT ASSEMBLY

Part Number	Description
140111561	bescription
190M	Coil, Magnet
1028	Screw (4-40 x 1/4 Fil)
2191	Washer, Lock
2438	Washer, Flat
3599	Nut (4-40 Hex)
7002	Washer, Flat
7603	Spring, Switch Lever
8330	Washer, Flat
36318	Washer, Flat
76806	Spring, Armature Bail
83877	Spring, Ratchet
110743	Washer, Lock
112091	Post, Spring
112636	Spring, Check Pawl Washer, Flat
113850	Washer, Flat
119467	Insulator
119649	Ring, Retaining
119650	Ring, Retaining
119652	Ring, Retaining
125011	Washer, Flat
125181	Screw $(2-56 \times 3/8 \text{ Fil})$
151152	Screw $(4-40 \times 3/16 \text{ Hex})$
151329	Switch
151610	Washer, Flat
151626	Terminal
151630	Screw $(6-40 \times 1/4 \text{ Hex})$
151631	Screw $(6-40 \times 5/16 \text{ Hex})$
151632	Screw $(6-40 \times 3/8 \text{ Hex})$
151722	Screw (6-40 x 3/16 Hex)
151737	Screw (4-40 x 11/64 Hex)
152893	Screw $(4-40 \times 1/4 \text{ Hex})$
155751	Sleeve, Insulating
156134	Plate, Adjusting
156146	Spacer
156933	Ratchet
158753	Armature W/Disk
158757	Hinge, Mounting
158758	Shaft
158760	Post, Spring
159301	Frame W/Shaft and Stud
159302	Bail
159303	Bracket
159304	Lever W/Hub
159309	Cable Assembly
159606	Pawl, Check
159608	Plate W/Stud
159733	Upstop, Armature



^{*}Peculiar to LARP? and LARP2.

FIGURE 2-14. CLUTCH TRIP MECHANISM

Part	
Number	Description
252M	Coil, Magnet
252M 259M	Coil, Magnet
1028	Screw (4-40 x 1/4 Fil)
2191	Washer, Lock
2438	Washer, Lock
7002	Washer, Flat
74962	Spring, Armature
76806	Spring, Armature
86079	Washer, Felt
110743	Washer, Lock
112091	Post, Spring
119649	Ring, Retaining
121125	Washer, Spring
125011	Washer, Flat
151610	Washer, Flat
151630	Screw (6–40 \times 1/4 Hex)
151632	Screw (6–40 \times 3/8 Hex)
1 <i>5</i> 1 <i>7</i> 37	Screw $(4-40 \times 11/64 \text{ Hex})$
152893	Screw (4–40 \times 1/4 Hex)
156141	Bail
158753	Armature
158754	Core
158757	Hinge, Mounting
158758	Shaft
158760	Post, Spring
158763	Bracket
159022	Bracket, Magnet
162928	Bracket, Clutch Trip
162929	Bail

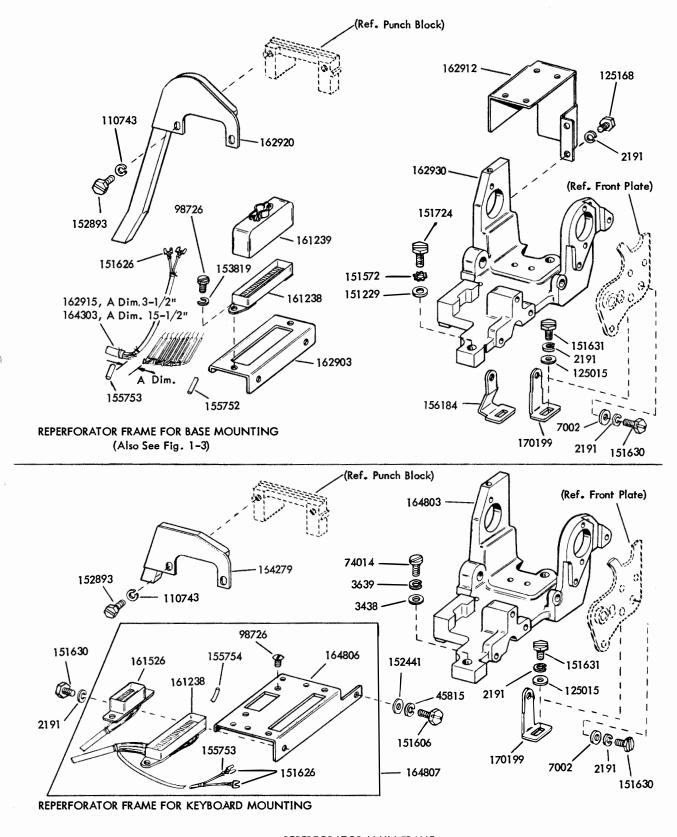


FIGURE 2-15. REPERFORATOR MAIN FRAME

Part	
Number	Description
2191	Washer, Lock
3438	Washer, Flat
3639	Washer, Lock
7002	Washer, Flat
45815	Washer, Lock
74014	Screw (10-32 x 3/4 Hex)
98726	Screw (3-48 x 1/4 Fil)
110743	Washer, Lock
125015	Washer, Flat
125168	Screw (6-40 x 1/4 FII)
151229	Washer, Flat
151572	Washer, Lock
151606	Screw (10–32 x 1/4 Hex)
151626	Terminal
151630	Screw (6–40 x 1/4 Hex)
151631	Screw (6–40 x 5/16 Hex)
151724	Screw (10-32 x 5/8 Hex)
152441	Washer, Flat
152893	Screw (4–40 x 1/4 Hex)
153819	Washer, Lock
155752	Sleeve, insulating $(1/16" \text{ ID} \times 3/8")$
155753	Sleeve, insulating $(1/8" \text{ ID} \times 1/2")$
155754	Sleeve, Insulating (1/16" ID \times 1/2")
156184	Bracket
161238	Connector, Receptacle (36 Pt)
161239	Connector, Plug (36 Pt)
161526	Connector, Receptacle (14 Pt)
162903	Bracket, Connector Mounting
162912	Guard, Gear
162915	Cable W/Terminals
162920	Chute, Chad
162930	Frame, Main
164279	Chute, Chad
164303	Cable W/Terminals
164803	Frame, Main
164806	Bracket, Connector Mounting
164807	Cable Assembly
170199	Bracket

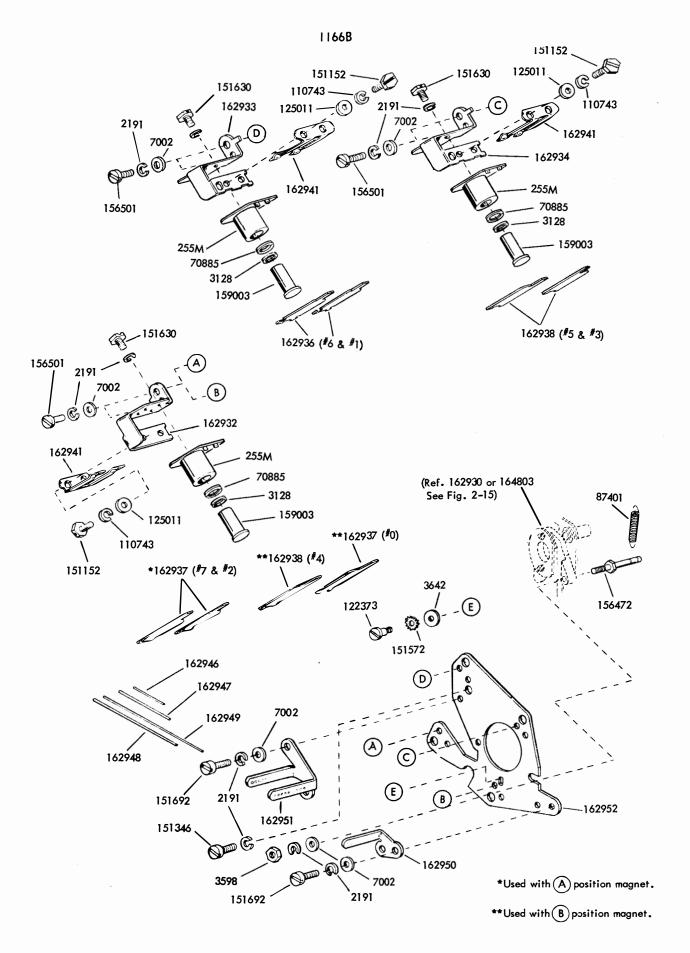
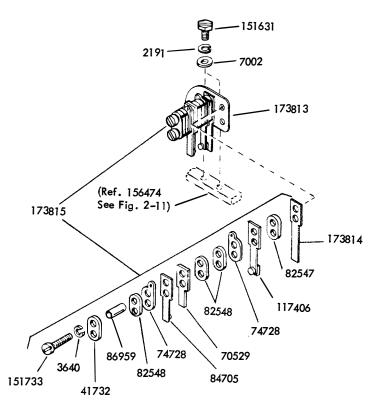


FIGURE 2-16. CODE SELECTOR MECHANISM

Part	
Number	Description
255M	Coil, Magnet
2191	Washer, Lock
3128	Washer, Fiber
3598	Nut (6-40 Hex)
3642	Washer, Flat
7002	Washer, Flat
7 0 885	Washer, Spring
87401	Spring, Clutch Latch
110743	Washer, Lock
122373	Screw, Shoulder (6-40)
125011	Washer, Flat
151152	Screw $(4-40 \times 3/16 \text{ Hex})$
151346	Screw (6-40 x 3/8 Fil)
151572	Washer, Lock
151630	Screw (6-40 \times 1/4 Hex)
151692	Screw $(6-40 \times 3/16 \text{ Fil})$
156742	Post, Spring
1 <i>5</i> 6 <i>5</i> 01	Screw (6-40 \times 7/32 Fil)
159003	Core
162932	Bracket, Mounting
162933	Bracket, Mounting
162934	Bracket, Mounting
162936	Armature
162937	Armature
162938	Armature
162941	Bracket W/Spring
162946	Rod (1 <i>-7/</i> 32" Lg)
162947	Rod (1-13/32" Lg)
162948	Rod (3-1/4" Lg)
162949	Rod (3-15/32" Lg)
162950	Guide
162951	Guide
162 9 52	Plate, Magnet Mounting



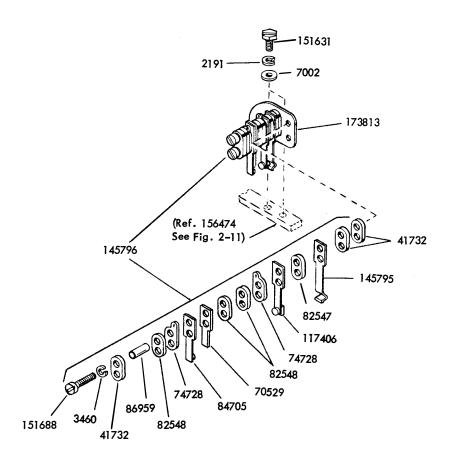


FIGURE 2-17. 145796 AND 173815 AUXILIARY CONTACT ASSEMBLIES

Description
Washer, Lock
Washer, Lock
Washer, Flat
Plate
Stiffener
Insulator
Spring, Contact
Bushing, Insulating
Spring, Contact
Camfollower
Contact Assembly
Screw (6-40 \times 5/16 Hex)
Screw (4–40 \times 5/8 Fil)
Screw (4-40 x 9/16 Fil)
Bracket, Contact
Camfollower
Contact Assembly

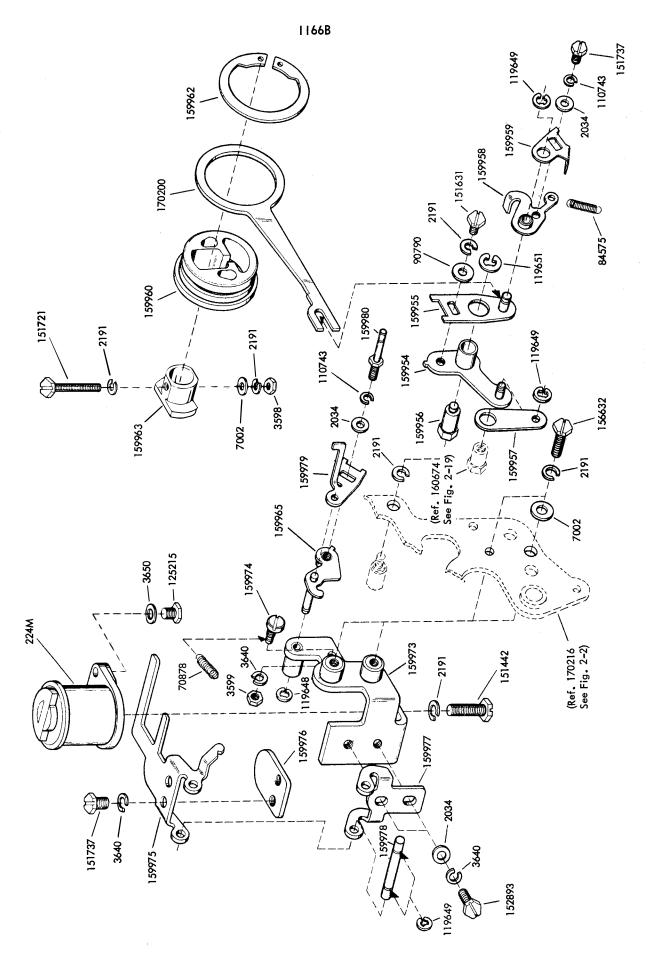


FIGURE 2-18. BACKSPACE MECHANISM

Part	
Number	Description
224M	Coil, Magnet
2034	Washer, Flat
2191	Washer, Lock
3598	Nut (6-40 Hex)
3599	Nut (4-40 Hex)
3640	Washer, Lock
3 650	Washer, Flat
7002	Washer, Flat
70878	Spring
84575	Spring
90790	Washer, Flat
110743	Washer, Lock
119648	Ring, Retaining
119649	Ring, Retaining
119651	Ring, Retaining
125215	Screw $(4-40 \times 3/16 \text{ Hex})$
151442	Screw (6–40 x 1/2 Hex)
151631	Screw (6-40 x 5/16 Hex)
151721	Screw (6-40 x 3/4 Hex)
151722	Screw (6-40 x 3/16 Hex)
151737	Screw (4-40 x 11/64 Hex)
152893	Screw (4-40 x 1/4 Hex)
156632	Screw (6-40 x 13/32 Hex)
159954	Link W/Sutds
159955	Link W/Post
159956	Post
159957	Link
159958	Latch W/Bushing
159959	Latch
159960	Eccentric
159962	Ring, Retaining
159963	Hub
159965	Arm W/Post and Bushing
159973	Bracket W/Bushings
159974	Eccentric Bail
159975	
159976	Armature
159977	Hinge
159978 159979	Shaft A
159980	Arm Post, Spring
137700	rosi, apring

170200

Arm

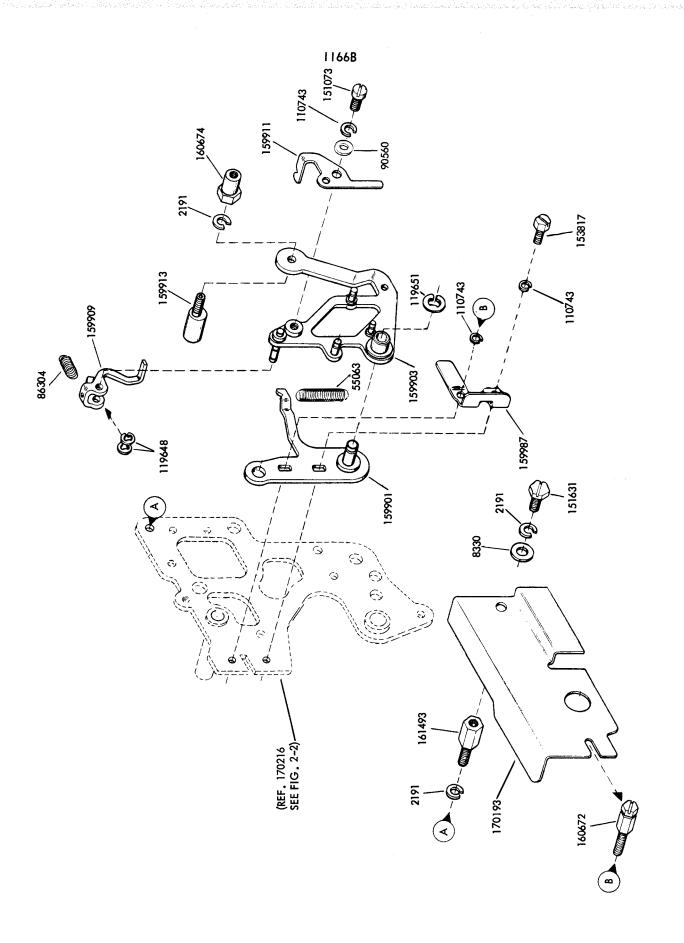


FIGURE 2-19. BACKSPACE MECHANISM

Part	
Number	Description
2191	Washer, Lock
8330	Washer, Flat
55063	Spring
86304	Spring
90560	Washer, Flat
110743	Washer, Lock
119648	Ring, Retaining
119651	Ring, Retaining
151073	Screw $(4-40 \times 5/32 \text{ Fil})$
151631	Screw $(6-40 \times 5/16 \text{ Hex})$
15381 <i>7</i>	Screw (4-40 x 3/8 Hex)
159901	Plate W/Post
159903	Crank W/Posts
159909	Pawl
159911	Plate
159913	Screw, Eccentric
159987	Bracket, Guide
160672	Stud, Mounting
160674	Nut, Special (6–40)
161493	Post, Mounting
1 <i>7</i> 0193	Guard, Backspace



SECTION 3

MOTOR UNIT

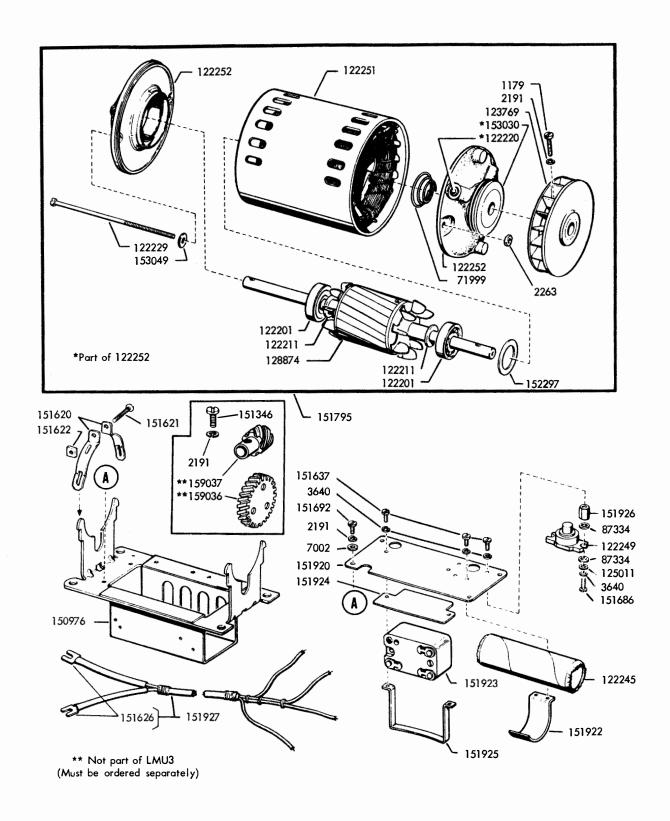


FIGURE 3-1. LMU3 SYNCHRONOUS MOTOR UNIT

Part	
Number	Description
	- 4, 4, -4, -40
1179	Screw (6-40 x 5/8 Fil)
2191	Washer, Lock
2263	Nut (8-32 Hex)
3640	Washer, Lock
7002	Washer, Flat
71999	Spring, Motor Thrust
87334	Washer, Insulating
122201	Bearing, Ball
122211	Washer, Pull
122220	Cup, Oil
122229	Bolt, Clamping (8-32)
122245	Capacitor
122249	Switch, Thermostatic
122251	Stator, Motor
122252	Shield Assembly, End
123769	Fan
125011	Washer, Flat
128874	Rotor, Motor
150976	Bracket, Motor
151346	Screw (6-40 x 3/8 Fil)
151620	Strap, Mounting
151621	Screw (6-32 x 3/4 Rd)
151622	Nut (6-32 Sq)
151626	Terminal
151637	Screw (4-40 x 1/4 Fil)
151686	Screw (4-40 x 3/8 Fil)
151692	Screw (6-40 x 3/16 Fil)
151795	Motor, Synchronous - 1/20 H.P. 115/1/60 Cycle,
151000	A.C. General Electric Model 5SC19LG3A
151920	Plate, Mounting
151922	Clamp
151923	Relay
151924	Insulator
151925	Clamp
151926	Nut (4-40 Spl)
151927	Cable W/Terminals
152297	Washer, Flat
153030	Mount, Vibration
153049	Washer, Fiber
159036	Gear (42T)
1 <i>5</i> 9037	Pinion (7T)

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SECTION 4

NUMERICAL INDEX

NUMERICAL INDEX

Part Number	Description and Page Number	Part Number	Description and Page Number	Part Number	Description and Page Number
190M	Coil, Magnet 2-26	90361	Washer, Felt 2–6	125138	Screw (2-56 x 3/8 Fil) 2-2
224M	Coil, Magnet 2-36	90560	Washer, Flat 2-38	125168	Screw $(6-40 \times 1/4 \text{ Fil})$ 2-30
252M 255M	Coil, Magnet 2-28 Cail, Magnet 2-16, 2-32	90573 90606	Spring 2-18 Spring 1-2	125181 125215	Screw (2-56 x 3/8 Fil) 2-26 Screw (4-40 x 3/16 Hex) 2-36
259M	Coil, Magnet 2-28	90790	Washer, Flat 2–36	125224	Nut (1/4-32 Hex) 1-6
1028	Screw (4-40 x 1/4 Fil) 2-26, 2-28	90791	Washer, Lock 2–4	125231	Nut (10-32 Hex) 2-18
1036 1172	Nut (6-40 Hex) 2-4 Screw (2-56 x 5/16 Fil) 2-2	91120 91683	Spring 2-4 Nut (15/32-32 Hex) 1-4	125421 128002	Dowel 2-2
1179	Screw (6-40 x 5/8 Fil) 3-2	91684	Nut (15/32-32 Ring) 1-4	128357	Screw (2–56 × 3/16 Fil) 2–2 Ring, Retaining 2–6
1256	Screw, Set (6-40) 2-20	93117	Washer, Lock 1–2	128874	Rotor 3-2
2034 2191	Washer, Flat 2–36 Washer, Lock 1–2, 1–4, 1–6, 2–2,	93356 98659	Washer, Felt 2–4, 2–22 Bracket 1–4	130892	Washer, Felt 2–24
	2-4, 2-6, 2-8, 2-12, 2-16, 2-18,	98726	Screw (3-48 x 1/4 Fil) 2-30	131099 145795	Terminal 2–12 Camfollower 2–34
	2-20, 2-22, 2-24, 2-26, 2-28, 2-30,	101892	Dowel 2-2	145796	Contact Assembly 2-34
2263	2-32, 2-34, 2-36, 2-38, 3-2 Nut (8-32 Hex) 3-2	104124	Screw (1/4-32 x 11/32 Hex) 1-6	150000	Drum 2-20
2438	Washer, Flat 2-26, 2-28	107393 107398	Switch 1-4 Terminal 1-4	150014 150027	Disk 2-20 Lever 2-20
2449	Washer, Lock 1–6	110743	Washer, Lock 2-2, 2-4, 2-6, 2-8,	150029	Wick, Felt 2-20
2669 3128	Washer, Lock 1-4, 1-6, 2-18 Washer, Fiber 2-16, 2-32		2-10, 2-12, 2-14, 2-16, 2-18,	150034	Disk 2-20
3438	Washer, Flat 1-6, 2-30		2-20, 2-22, 2-24, 2-26, 2-28, 2-30, 2-32, 2-36, 2-38	150040 150043	Screw (6-40 x 5/8 Fil) 2-20 Shoe 2-20
3598	Nut (6-40 Hex) 2-2, 2-4, 2-6, 2-8,	111017	Screw (6-40 x 5/16 Fil) 1-4	150044	Shoe 2-20
3599	2-32, 2-36 Nut (4-40 Hex) 2-2, 2-10, 2-22,	111545	Core 1-2	150241	Spring 2-20
3377	2-36	112091 112626	Post 2-26, 2-28 Nut (10-32 Hex) 1-4	1 <i>5</i> 03 <i>5</i> 5 1 <i>5</i> 03 <i>5</i> 6	Lever 2-22 Lever 2-22
3624	Washer, Flat 1-2	112630	Spring 2-22	150830	Ring, Spacing 2-20
3639 3640	Washer, Lock 2-30	112636	Spring 2-26	150841	Bearing 2-20
3040	Washer, Lock 1-2, 1-4, 2-20, 2-22 2-34, 2-36, 3-2	113850 114467	Washer, Flat 2–26 Connector 1–4	1 <i>5</i> 0923 1 <i>5</i> 0966	Washer, Felt 2–6, 2–8 Insulator 1–4
3642	Washer, Flat 2-32	114876	Washer, Flat 2-22	150976	Bracket 3-2
3650	Washer, Flat 2-36	117406	Spring, Contact 2-34	150991	Washer, Felt 2–8
5363 7002	Spring 2–4 Washer, Flat 1–2, 1–6, 2–2, 2–4,	117619 119467	Spring 2–24 Insulator 1–2, 2–26	151073	Screw (4-40 x 5/32 Fil) 2-2, 2-6, 2-10, 2-38
	2-6, 2-12, 2-18, 2-22, 2-24, 2-26,	119647	Ring, Retaining 2-4	151152	Screw $(4-40 \times 3/16 \text{ Hex}) 2-2, 2-32$
7402	2-28, 2-30, 2-32, 2-34, 2-36, 3-2	119648	Ring, Retaining 2-2, 2-4, 2-36,	151222	Washer, Felt 2-6
7603 8330	Spring 2-26 Washer, Flat 2-6, 2-8, 2-22, 2-26,	119649	2-38 Ring, Retaining 2-4, 2-10, 2-26,	151229 151246	Washer, Flat 2–30 Washer, Flat 2–18
	2–36	117017	2-28, 2-36	151329	Switch 2-26
8449 31636	Washer, Flat 1-2	119650	Ring, Retaining 2-6, 2-8, 2-26	151335	Stud 1-4
36318	Spring 2–22 Washer, Flat 2–22, 2–26	119651	Ring, Retaining 2-8, 2-24, 2-36, 2-38	151346 151362	Screw (6-40 x 3/8 Fil) 2-32, 3-2 Wick 2-18
41382	Spring 2-4, 2-22	119652	Ring, Retaining 2-4, 2-6, 2-8,	151411	Block 1-4
41732 41733	Plate 2-24, 2-34	110/50	2-22, 2-26	151412	Insulator 1-4
42823	Insulator 2—24 Washer, Flat 2—20	119653 119654	Ring, Retaining 2–8 Ring, Retaining 2–18	151415 151416	Block 1-4 Nut (6-40 Hex) 1-4, 2-4, 2-6
45815	Washer, Lock 2–30	119655	Ring, Retaining 2-18	151442	Screw $(6-40 \times 1/2 \text{ Hex})$ 2-2, 2-18,
55063 70314	Spring 2–2, 2–38 Washer, Flat 2–20	119656	Ring, Retaining 2-20	151570	2-36
70529	Stiffener 2-34	120175 121125	Plate, Switch 1–4 Washer, Spring 2–28	151572 151606	Washer, Lock 2–30, 2–32 Screw (10–32 x 1/4 Hex) 2–30
70878	Spring 2-36	121243	Clamp, Cable 1-2	151610	Washer, Flat 1-2, 2-26, 2-28
70885 71437	Washer, Spring 2-16, 2-32	121244	Clamp, Cable 1-6, 2-24	151620	Strap 3-2
71999	Washer, Flat 2–6 Spring 3–2	121245 121 <i>5</i> 75	Clamp, Cable 1-4, 1-6 Screw (10-32 x 5/16 Hex) 1-4	151621 151622	Screw (6-32 x 3/4 Rd) 3-2 Nut (6-32 Sq) 3-2
72646	Bushing, Insulating 2-24	122201	Bearing 3-2	151626	Terminal 1-2, 2-12, 2-16, 2-24,
72728 74014	Terminal 2-24 Screw (10-32 x 3/4 Hex) 2-30	122211	Washer, Pull 3-2		2-26, 2-30, 3-2
74536	Screw (6-40 x 5/32 Fil) 2-22	122220 122229	Cup, Oil 3-2 Bolt, Clamping (8-32) 3-2	151630	Screw (6-40 x 1/4 Hex) 1-2, 1-4, 1-6, 2-2, 2-4, 2-8, 2-16, 2-20,
74547	Collar 2-22	122245	Capacitor 3-2		2 - 22, 2-26, 2-28, 2-30, 2-32
74962	Spring 2-28	122249	Switch 3-2	151631	Screw (6-40 x 5/16 Hex) 1-2, 1-6,
76806 81726	Spring 2-26, 2-28 Terminal 2-24	122251 122252	Stator 3-2 Shield Assembly 3-2		2-18, 2-22, 2-24, 2-26, 2-30, 2 - 34, 2-36, 2 - 38
82474	Terminal 1-4	122373	Screw, Shoulder (6-40) 2-32	151632	Screw $(6-40 \times 3/8 \text{ Hex})$ 2-2, 2-16,
82548	Insulator 2-34	123706	Screw (10-32 x 1/4 Flat) 1-6		2-20
83877 84575	Spring 1-2, 2-26 Spring 2-36	123769 124177	Fan 3-2 Washer Lock 2-18	151633	Bearing 2-18 Screw (4-40 x 1/4 Fil) 1-4, 2-2,
84705	Spring, Contact 2-34	124334	Washer, Lock 2–18 Screw (6–40 x 1–27/32 Hex) 2–12	151637	2-8, 2-10, 2-14, 3-2
84892	Stiffener 2-24	124999	Switch 1-2	151638	Washer, Spring 2–18
86079 86304	Washer, Felt 2–28 Spring 2–38	125011	Washer, Flat 2-2, 2-10, 2-12, 2-14, 2-16, 2-18, 2-22, 2-26,	151639 151657	Washer, Flat 2–18 Screw (6–40 x 1/4 Fil) 2–22
87334	Washer, Insulating 3–2		2-14, 2-16, 2-16, 2-22, 2-26, 2-28, 3-2	151686	Screw (6-40 x 1/4 FII) 2-22 Screw (4-40 x 3/8 FII) 3-2
87401	Spring 2-16, 2-32	125015	Washer, Flat 1-2, 1-6, 2-6, 2-30	151688	Screw $(4-40 \times 5/8 \text{ Fil}) 2-22, 2-34$

NUMERICAL INDEX (Continued)

Part Number	Description and Page Number	Part Number	Description and Page Number	Part Number	Description and Page Number
151690	Screw (10-32 × 5/16 Fil) 2-18	156046	Block 2-2	156971	Screw (2-56 x 3/4 Fil) 1-2
151692	Screw (6-40 x 3/16 Fil) 2-32, 3-2	156047	Spring 2-4	156972	Cable, Assembly 1-2
151693	Screw (6-40 x 9/16 Fil) 2-22	156050	Stud 2-4	156975	Bracket 1-4
151721	Screw (6-40 x 3/4 Hex) 1-2, 2-36	156051	Bushing 2-6	156976	Connector 1-4
151722	Screw (6-40 x 3/16 Hex) 1-4, 2-2,	156052	Shoe 2-4	156977	Cable Assembly 1-4
151724	2-16,2-22,2-26,2-36	156054	Lever 2-4	156978	Cable Assembly 1-4
151724	Screw (10-32 x 5/8 Hex) 2-30	156055	Wheel, Die 2-4	156987	Screw, Shoulder (6-40) 2-18
151732	Screw (4-40 x 11/32 Fil) 2-12 Screw (4-40 x 9/16 Fil) 2-24, 2-34	156058	Link 2-6	156988	Race, Outer 2-18
151736	Spring 2-20	156059 156060	Bail 2–6 Shaft 2–6	1 <i>5</i> 6989 1 <i>5</i> 6990	Roller 2-18
151737	Screw $(4-40 \times 11/64 \text{ Hex}) 2-10$,	156061	Arm 2-4	156994	Race, Inner 2–18 Strip, Felt 2–18
	2-20, 2-22, 2-26, 2-28, 2-36	156062	Post, Pivot 2-4	156995	Post 2-18
151739	Screw (6-40 x 3/16 Hex) 2-8	156067	Guide 2-6	156998	Retainer, Roller 2–18
151795	Motor 3-2	156069	Plate 2-2	158177	Collar 2-20
151920	Plate 3-2	156070	Bail 2-6	158182	Disk 2-20
151922	Clamp 3-2	156077	Plate 2-6	158186	Screw (4-40 x 7/32 Fil) 2-20
151923	Relay 3-2	156089	Slide W/Insulator 2-2	158745	Plate, Clamp 2-18
151924 151925	Insulator 3-2 Clamp 3-2	156090	Screw, Adjusting 2-4	158753	Armature 2-26, 2-28
151926	Nut (4-40 Spl) 3-2	1 <i>5</i> 6093 1 <i>5</i> 6094	Washer, Felt 2–6 Link 2–6	1 <i>5</i> 87 <i>5</i> 4 1 <i>5</i> 87 <i>5</i> 7	Core, Magnet 2-28
151927	Cable Assembly 3-2	156095	Bushing 2-6	158758	Hinge 2-26, 2-28 Shaft 2-26, 2-28
152297	Washer, Flat 3-2	156099	Link 2-6	158760	Post, Spring 2-26, 2-28
152441	Washer, Flat 2-18, 2-30	156102	Plate 2-2	158763	Bracket 2-28
152634	Washer, Flat 2–6	156103	Strip, Felt 2-6	158940	Wick, Felt 2-20
152893	Screw $(4-40 \times 1/4 \text{ Hex}) 2-2, 2-4,$	156104	Shaft 2–2	158941	Bail, Rocker 2-18
	2-6, 2-12, 2-14, 2-18, 2-22,	156106	Bail 2-2	159000	Base 1-6
1.50000	2-26, 2-28, 2-30, 2-36	156108	Bracket 2-6	159001	Frame 1-6
153030 153049	Mount, Vibration 3-2	156132	Bearing 2-20	159003	Core 2–16, 2–32
153267	Washer, Fiber 3-2	156134	Plate 2-26	159004	Spacer, Bearing 2-22
153539	Washer, Felt 2–2 Screw (6–40 x 11/16 Hex) 1–2	156137 156141	Washer, Flat 2-20 Bail 2-28	159005	Spacer, Bearing 2-22
153577	Washer, Felt 2–8	156146	Spacer 2-26	159006 159007	Armature 2-16 Armature 2-16
153631	Network 2-24	156153	Collar 2-20	159008	Armature 2-16
153817	Screw (4-40 x 3/8 Hex) 2-38	156155	Pawl 2-20	159010	Bracket 2-16
153819	Washer, Lock 2–30	156156	Pawl 2-20	159011	Bracket 2–22
153839	Screw $(6-40 \times 5/8 \text{ Hex}) 2-6, 2-8,$	156162	Washer, Flat 2–6	159012	Bracket 2-16
154242	2-16, 2-22 Serow (4-40 y 2/9 Hey) 2-19	156163	Guide 2-22	159014	Rod 2-16
154398	Screw (6-40 x 3/8 Hex) 2-18 Bearing, Roller 2-20	156165	Washer, Felt 2-6, 2-22	159015	Rod 2-16
154698	Wick 2-4	156166	Spring 2-2	159016	Post, Guide 2-22
155556	Link 2-8	1 <i>5</i> 6169 1 <i>5</i> 6172	Washer, Felt 2-6 Rod 2-2	159017 159018	Yoke 2-16 Latch 2-22
155724	Strip 2-12	156173	Stud 2-2	159019	Plate 2-16
155725	Plate 2-12	156183	Bracket 1-6	159020	Guide 2-16
155750	Sleeve 1-4, 2-16	156267	Lever 2-22	159022	Bracket 2-28
155751	Sleeve 1-2, 1-4, 2-24, 2-26	156334	Stud 1-6	159023	Lever 2-22
155752	Sleeve 2-30	156340	Bracket 1-4	159025	Lever 2-22
155753 155754	Sleeve 2-16, 2-24, 2-30 Sleeve 2-30	156342	Plate 1-2	159026	Spring, Contact 2-24
155779	Plate 2-10	156344	Bracket 1-6	159032	Plate 2-22
155781	Bracket 2-10	156366 156403	Shaft 2–18 Disk 2–18	159033 159036	Lever 2-22 Gear 3-2
155782	Bracket 2-12	156448	Bushing 1-2	159037	Gear 3-2
155783	Plate 2-12	156449	Lever 1-2	159038	Guard 2-16
156002	Pin, Punch 2-2	156451	Bushing 1-2	159039	Spring 2-10
156008	Wheel, Feed 2-4	156452	Lever 1-2	159040	Bracket 2-10
156009	Post 2-6	156460	Panel Assembly 1-2	159041	Post 2-8
156012	Spring 2-2	156465	Washer, Spring 2-18	159044	Post 1-6
156013 156015	Screw, Adjusting (4-40) 2-6 Plate 2-2	156470	Guide, Tape 1-2	159045	Post 1-6
156016	Link 2-6	156472 156474	Post 2-16, 2-32 Bar 2-22	159046	Plate 2-8
156017	Shaft 2-6	156501	Screw (6-40 × 7/32 Fil) 2-32	159049 159050	Bracket 2–8 Link 2–8
156019	Washer, Felt 2-4, 2-8	156515	Washer, Felt 2-8	159051	Shaft 2-8
156020	Slide 2-2	156536	Screw (4-40 x 1/8 Fil) 2-16	159052	Plate 2-10
156024	Plate 2-2	156576	Washer, Felt 2–18	159053	Plate 2-8
156028	Plate 2-4	156577	Roller 2-4	159054	Bracket 2-10
156036	Chute, Tape 2-4	156632	Screw (4-40 x 13/32 Hex) 2-36	159055	Bracket 2-10
156040 156042	Stud 2-4 Post Spacing 2-4	156884	Arm, Rocker 2-6	159057	Post 2-8
156042	Post, Spacing 2-4 Bushing 2-6	156887	Screw (10-32 x 9/16 Hex) 1-4, 1-6	159058	Post 2-8
156043	Stud 2-4	156933 156936	Ratchet 2-26 Screw (1/4-32 x 5/16 Hex) 1-6	159059	Arm 2-8 Slide 2-10
156045	Shaft 2-4	156969	Guard 1-6	1 <i>5</i> 9060 1 <i>5</i> 9061	Latch 2-10

NUMERICAL INDEX (Continued)

Part Number	Description and Page Number	Part Number	Description and Page Number	Part Number	Description and Page Number
159062	Guide 2-10	159975	Bail 2-36	142041	C
159063	Plate 2-8	159976	Armature 2-36	162961 162962	Spacer, Bearing 2-22 Extension 2-22
159064	Plate 2-8	159977	Hinge 2-36	162964	Spacer 2-22
159065	Bracket 2-16	159978	Shaft 2-36	162967	Cam 2-20
159070 159071	Slide 2-10 Link 2-18	159979	Arm 2-36	162988	Bail, Retractor 2-18
159074	Shaft 2-10	159980 159987	Post, Spring 2-36	162992 162993	Block Assembly 2-2
159077	Plate 2-12	160087	Bracket, Guide 2–38 Post , Spring 2–22	162994	Block Assembly 2-2 Block Assembly 2-2
1.59078	Block 2-12	160579	Cam 2-20	162995	Holder, Punch 2-2
159079	Lever, Contact 2-12	160.581	lever 2-22	162996	Holder, Punch 2-2
159084	Cable Assembly 2-24	160582	Washer, Felt 2–20	164241	Plate Die 2-2
159085 159089	Cable Assembly 2–16 Contact Assembly 2–24	160642	Spring 2-22	164244	Plate, Die 2-2
159090	Guide 2-16	160672 160674	Stud, Mounting 2–38 Nut, Special (6–40) 2–38	164259 164260	Chute, Tape 2–4 Chute, Tape 2–4
159091	Bracket 2-16	160674	Spring 2-22	164261	Chute, Tape 2-4
159093	Plate 2-8	160842	Washer, Spring 2-20	164279	Chute, Chad 2–30
159094	Plate 2-12	160948	Screw. Special (2-56 x 5/32) 2-4	154300	Spacer 2-2, 2-22
159095	Spring 2-12	160949	Spring 2-20	164303	Cable 2-30
159097	Screw, Contact 2-12	161 107	Stud 2-4	164307	Spring 2-2
159099 159251	Lever, Contact 2-12 Bracket 2-24	161108	Stud 2-6	16 4309 164511	Post, Guide 2-6 Lever 2-4
159256	Bail 2-24	161109 161139	Post 2-6 Nut (6-40 Shoulder) 2-4	164513	Pawl 2-6
159264	Cable Assembly 2-12	161238	Connector 2-30	164515	Spring 2-4
159272	Spring 2-10	161239	Connector 2-30	164803	Frame, Main 2-30
159301	Frame 2-26	161493	Post, Mounting 2-38	164804	Shaft W/Bearing 2-20
159302	Bail 2-26	161495	Plate 2-14	164805	Lever 2-22
159303	Bracket 2-26	161496	Bracket 2-14	164806	Bracket 2-30
159304 159309	Lever 2-26 Cable Assembly 2-26	161497 161499	Block 2-14 Plate 2-14	164807 164851	Cable Assembly 2-30 Wheel, Feed 2-4
159345	Block 2-12	161502	Slide 2-14	170199	Bracket 2-30
159411	Bearing Assembly 2-18	161526	Connector 2-30	170200	Arm 2-36
159427	Bracket 2-22	161652	Plate 2-14	170203	Lever, Trip 2-22
159428	Retainer, Wick 2-22	162075	Core 1-2	170210	Block Assembly 2-2
159429	Wick, Felt 2-22	162077	Handle 1-6	170211	Arm, Rocker 2-6
159430 159540	Lever 2-22 Post 1-2	162092 162093	Guide, Tape 2-4 Spring 2-4	170215 170216	Spring 2-2
159543	Washer, Flat 1-2	162248	Hub 2-18	170217	Plate, Front 2–4 Stud 2–4
159544	Release 2-22	162573	Retainer 2-20	170218	Shaft 2-4
159560	Spring 2-2	162903	Bracket 2-30	170219	Stud 2-4
159603	Washer, Captive 1-6	162912	Guard, Gear 2-30	170225	Block 2-2
159604 159606	Screw, Special (10-32) 1-6	162915	Cable 2-30	170228	Plate, Die 2-2
159608	Pawl 2-26 Plate 2-26	162920 162921	Chute, Chad 2-30 Contact Assembly 2-24	170241 170242	Screw, Adjusting 2-4 Slide 2-2
159625	Bracket 2-18	162922	Bracket 2-24	170244	Wheel, Die 2-4
1.59651	Plate 2-22	162925	Link 2-18	170245	Wheel, Feed 2-4
159652	Plate 2-22	162926	Plate 2-22	170246	Slide 2-2
159656 159657	Block Assembly 2-2	162928	Bracket 2-28	170247	Guide 2-2
	Plates, Guide and Die 2-2 Upstop, Armature 2-26	162929 162932	Bail 2–28 Bracket, Mounting 2–32	170248 170249	Pin, Punch 2-2 Pin, Punch 2-2
159901	Plate 2-38	162933	Bracket, Mounting 2-32	170269	Holder, Punch 2-2
159903	Crank 2-38	162934	Bracket, Mounting 2-32	170779	Wheel, Feed 2-4
159909	Pawl 2-38	162936	Armature 2-32	170788	Wheel, Die 2-4
159911	Plate 2-38	162937	Armature 2-32	172983	Bracket, Spring 2-6
159913 159923	Screw, Eccentric (6-40) 2-38	162938 162941	Armature 2-32 Bracket W/Spring 2-32	172984	Bracket, Spring 2-2
159954	Halder. Punch 2-2 Link 2-36	162942	Shaft W/Bearing 2-20	172993 173203	Spring 2-2 Bearing, Sleeve 2-20
159955	Link 2-36	162944	Lever, Trip 2-22	173205	Shaft W/Bearing 2-20
159956	Post 2-36	162945	Bracket 2-22	173339	Modification Kit 2-20
159957	Link 2-36	162946	Rod (1-7/32" Lg) 2-32	173340	Collar 2-20
159958	Latch 2-36	162947	Rod (1-13/32" Lg) 2-32	173806	Bearing, Sleeve 2-20
1 <i>5</i> 9959 1 <i>5</i> 9960	Latch 2–36 Eccentric 2–36	162948 162949	Rod (3-1/4" Lg) 2-32 Rod (3-15/32" Lg) 2-32	173807	Screw, Set 2-20
159962	Ring, Retaining 2-36	162950	Guide 2-32	173813 173814	Bracket, Contact 2–34 Camfollower 2–34
159963	Hub 2-36	162951	Guide 2-32	173815	Contact Assembly 2-34
159965	Arm 2-36	162952	Plate, Magnet Mounting 2-32	176151	Pin, Guide 2-2
159973	Bracket 2-36	162959	Post, Guide 2-22	176329	Holder, Punch 2-2
159974	Eccentric 2-36	162960	Pawl, Blocking 2-22	207223WU	Post 1-2